

REMARKS

STATUS

This response accompanies a Request for Continued Examination. Claims 1, 5, 10, 17-18, 24, 26, 29-30, and 32-25 are pending in the application and stand rejected under 35 U.S.C. §102(e) as anticipated by U.S. Pat. No. 6,284,113 to Bjornson, and under 35 U.S.C. §103(a) as allegedly obvious over U.S. Pat. No. 5,601,992 to Lerner in view of Bjornson. Applicants are not amending the claims or specification.

REJECTION UNDER 35 U.S.C. §102(E)

Claims 1, 5, 10, 17-18, 24, 26, 29-30, and 32-25 were rejected under 35 U.S.C. §102(e) as allegedly anticipated by U.S. Pat. No. 6,284,113 (“Bjornson”). Specifically, the examiner states that Bjornson teaches methods wherein analytes or beads may be disposed within individually identifiable containers such as an array of capillary tubes, the transfer of the analytes from the containers to microarray substrates in a manner that maintains the transferred contents separate from those of each other container, the contacting of analytes with a target, and detection means including, but not limited to spectrophotometric, chemiluminescent, electrochemical, or radio chemical means. Applicants traverse the rejection because the cited reference does not teach all of the limitations of the claimed invention.

Independent claim 1 teaches a method for screening for analytes comprising the steps of (a) disposing a plurality of analytes to be screened within individually identifiable containers such that the analytes remain isolated from each other, wherein the individually identifiable containers are an array of capillary tubes each of which is identifiable according to its position within the array; (b) dispensing the analytes through the open ends of the capillary tubes onto at least one solid support to maintain the transferred contents of each container separate from those of each other container, wherein said analytes are simultaneously applied onto the at least one solid support; (c) contacting said at least one analyte-carrying solid support with targets provided in a semi-solid or liquid medium, whereby said analytes are released from the at least one solid support to the targets, wherein each analyte when applied to the solid support diffuses thereon so as to produce a

concentration gradient; and (d) measuring analyte-target interactions, wherein said analyte-target interactions are measured using one or more of the following methods: microscopic, luminometric, densitometric, isotopic, and physical measurements. Applicants respectfully assert that Bjornson does not teach the measuring of analyte-target interactions as required in step (d).

The examiner alleges that Bjornson, at column 28, lines 37-42, teaches methods that employ detection means. Applicants submit that this characterization of Bjornson is incorrect. The cited paragraph describes generally how label or reporter molecules can be used in assays and screening methods, and detected via spectrophotometric, chemiluminescent, electrochemical, or radiochemical means. Applicants respectfully assert that this is not a teaching or suggestion to measure analyte-target interactions as presently claimed. As such, all of the limitations of the claimed invention are not taught or suggested by Bjornson, and withdrawal of the rejection is warranted.

REJECTION UNDER 35 U.S.C. §103(A)

Claims 1, 5, 10, 17-18, 24, 26, 29-30, and 32-25 are rejected under 35 U.S.C. §103(a) as allegedly obvious over U.S. Pat. No. 6,284,113 (“Lerner”) in view of Bjornson. Specifically, the examiner states that Lerner discloses detecting the interaction with an analyte and a target, but does not teach the method of instant claim 1. The examiner states that Bjornson supplies the elements missing from Lerner and provides a motivation to combine because Bjornson teaches manipulation of analytes or beads within microarray plates and because Bjornson teaches evaluating analyte binding to a cell surface to identify specific binding pairs, and so to screen for potential drugs that target cell surface receptors. Applicants traverse the rejection because a *prima facie* case for obviousness has not been established.

The fact that two references can be combined does not fulfill the standard for obviousness. Rather, a motivation to combine the references must be supplied. Applicants assert that a proper motivation to combine the references has not been provided. Lerner requires that an oligomeric molecule be attached to beads in order to be placed on a substrate, and that the molecule subsequently be cleaved from and allowed to dissociate from the beads to interact with a target. There is no teaching or suggestion in Lerner to use individually

identifiable containers or capillaries for any purpose. Bjornson does not teach or suggest that analytes attached to and subsequently cleaved from beads as described in Lerner could be used in its devices and methods. Accordingly, one of skill in the art considering Lerner would not look to Bjornson for guidance to devise a method for utilizing individual containers or capillaries to bring a bead-analyte complex into proximity with a target. Similarly, one of skill in the art considering Bjornson would not look to Lerner for guidance to devise a method for bringing a bead-analyte complex into proximity of a target via individual containers or capillaries. As such, there can be no motivation to combine the respective teachings of these references to arrive at the present invention. Whether or not Bjornson teaches assaying specific binding pair members (and Applicants are not conceding that Bjornson does so) does not change this result.

The examiner states that the motivation to combine arises from Bjornson's alleged disclosure of the manipulation of beads. Applicants respectfully submit that this characterization is incorrect. The referenced paragraph of Bjornson describes what the skilled artisan operating a microfluidic network must consider for establishing proper operation of the network, such as how much electrical potential to apply to facilitate flow of a sample. The paragraph mentions only that manipulation of beads in the channel is one such consideration. There is no teaching or suggestion anywhere in the Bjornson disclosure to attach analytes to beads or otherwise utilize beads as a carrier to bring an analyte in proximity to a target for analysis purposes, and there is no teaching or suggestion in the Bjornson or Lerner disclosures to screen analytes (beads or not) using the methods as claimed in the present invention. Accordingly, a *prima facie* case for obviousness has not been established, and withdrawal of the rejection is warranted.

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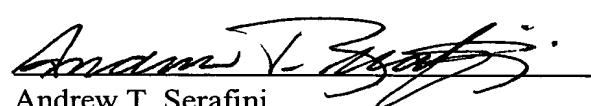
PATENT
REPLY FILED UNDER EXPEDITED
PROCEDURE PURSUANT TO
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CONCLUSION

In view of the foregoing remarks, Applicants respectfully assert that all claims presently pending are in condition for allowance. Favorable reconsideration and a Notice of Allowance are earnestly requested.

Respectfully submitted,

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